

## SNC2D – Unit 3 (Climate Change) Review Questions

### Chapter 7 – Earth's Climate System

- What's the difference between climate and weather?
- How do each of the following factors affect climate?
  - Solar cycles
  - Earth's tilt
  - Earth's eccentricity
  - Latitude
  - Atmosphere
  - Hydrosphere
  - Volcanic Eruptions
- Explain the Greenhouse Effect – how does it work?
- What is albedo?
- How does albedo have an affect on Earth's climate?
- What is the difference between **natural** and **anthropogenic** climate change?
- Can you make/read a climatograph?
- How are each of the following effects caused by / related to global warming?
  - Lower albedo of Earth
  - Rising sea level
  - Ocean Acidity
  - Increasing severity of storms
- What are some ways we can reduce possible anthropogenic global warming?
  - Name and explain a few “environmentally-friendly” ways
  - Name and explain two “geo-engineering” ways (i.e. pumping SO<sub>2</sub> into the atmosphere to block out the Sun)

### Chapter 8 – Dynamics of Climate Change

- What are **positive** and **negative** feedback loops?
- Could you identify positive and negative feedback loops that are given?
- What are **El Nino** and **La Nina**?
  - How is our climate in Canada related to El Nino and La Nina?
- What is the composition of the atmosphere?
- What are **greenhouse gases**?
  - What are the major ones?
  - How have the concentrations of each gas changed recently?
- What is **ozone depletion**?
- What's the difference between **tropospheric ozone** and **stratospheric ozone**?
- How have (chloro)fluorocarbons affected Earth's ozone layer?
- What action has been taken to prevent ozone depletion?
- What is a chemical's **Global Warming Potential**?
- What is the global carbon budget (i.e. where is Earth's carbon stored)?
- How have human activities affected the natural carbon cycle?

## Chapter 9 – Addressing Climate Change

- What methods are used to discover past climates?
- Be able to explain how Tree Rings and Ice Cores are used to determine past climates
- Name the two types of Satellites and how each are used
- Are **climate models** certain to predict the future of the Earth?
- What is the IPCC?
- Why are different groups biased for/against action on climate change?
  - Name a couple groups who have a vested interest in the public's opinion about climate change
- What is a person's **carbon footprint**?
  - How can you increase/decrease your footprint?

## Other

- Explain carbon sequestration
- How can Algae be used for fuel? Why is this ideal / not ideal?